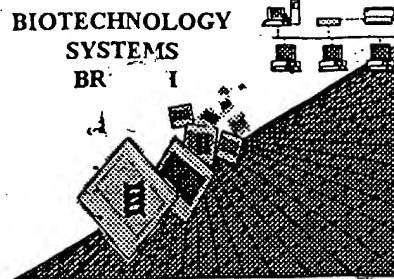


RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/937,862

Source: PCT09

Date Processed by STIC: 10/30/01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 091937,862

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ **Wrapped Nucleics
Wrapped Aminos** The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 ☐ **Invalid Line Length** The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 ☐ **Misaligned Amino
Numbering** The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 ☐ **Non-ASCII** The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 ☐ **Variable Length** Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 ☐ **PatentIn 2.0
"bug"** A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 ☐ **Skipped Sequences
(OLD RULES)** Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 ☐ **Skipped Sequences
(NEW RULES)** Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 ☒ **Use of n's or Xaa's
(NEW RULES)** Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 ☐ **Invalid <213>
Response** Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 ☒ **Use of <220>** Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 ☐ **PatentIn 2.0
"bug"** Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/937,862

DATE: 10/30/2001

TIME: 13:19:11

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

**Does Not Comply
Corrected Diskette Needed**

W--> 4 <110> APPLICANT:
W--> 6 Oberste, M. Steven
W--> 7 Maher, Kaija
W--> 8 Kilpatrick, David R.
W--> 9 Pallansch, Mark A.

12 <120> TITLE OF INVENTION: TYPING OF HUMAN NON-POLIO ENTEROVIRUSES

14 <130> FILE REFERENCE: 14114.0353U2

C--> 16 <140> CURRENT APPLICATION NUMBER: US/09/937,862

C--> 16 <141> CURRENT FILING DATE: 2001-09-28

16 <150> PRIOR APPLICATION NUMBER: PCT/US00/07828

W--> 17 <151> PRIOR FILING DATE: 2000-3-24

19 <150> PRIOR APPLICATION NUMBER: 60/127,464

W--> 20 <151> PRIOR FILING DATE: 1999-3-31

22 <160> NUMBER OF SEQ ID NOS: 86

24 <170> SOFTWARE: FastSEQ for Windows Version 3.0

26 <210> SEQ ID NO: 1

27 <211> LENGTH: 20

28 <212> TYPE: DNA

29 <213> ORGANISM: Artificial Sequence

W--> 31 <220> FEATURE:

W--> 31 <223> OTHER INFORMATION:

31 <400> SEQUENCE: 1

32 gcertgcaatg aytctcwggt

34 <210> SEQ ID NO: 2

35 <211> LENGTH: 18

36 <212> TYPE: DNA

37 <213> ORGANISM: Artificial Sequence

W--> 39 <220> FEATURE:

W--> 39 <223> OTHER INFORMATION:

39 <400> SEQUENCE: 2

W--> 40 ngcnccdgat tgntgscg

42 <210> SEQ ID NO: 3

43 <211> LENGTH: 20

44 <212> TYPE: DNA

45 <213> ORGANISM: Artificial Sequence

47 <220> FEATURE:

48 <221> NAME/KEY: modified_base

49 <222> LOCATION: (3)...(0)

50 <223> OTHER INFORMATION: I

52 <221> NAME/KEY: modified_base

53 <222> LOCATION: (6)...(0)

54 <223> OTHER INFORMATION: I

56 <221> NAME/KEY: modified_base

57 <222> LOCATION: (12)...(0)

58 <223> OTHER INFORMATION: I

60 <221> NAME/KEY: modified_base

61 <222> LOCATION: (15)...(0)

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

W--> 31 <223> OTHER INFORMATION: - must explain, see error summary sheet, Item 11
Source

20

missin

<221> must provide appropriate identifier
<222> must give location of n + identify n

→ see error summary sheet item #9

18

50 <223> OTHER INFORMATION: I ? unacceptable explanation → Item 11

RAW SEQUENCE LISTING

DATE: 10/30/2001

PATENT APPLICATION: US/09/937,862

TIME: 13:19:11

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

62 <223> OTHER INFORMATION: I
 64 <400> SEQUENCE: 3
 W--> 65 gcncngayt gntgnccraa
 67 <210> SEQ ID NO: 4
 68 <211> LENGTH: 20
 69 <212> TYPE: DNA
 70 <213> ORGANISM: Artificial Sequence
 72 <220> FEATURE:
 73 <221> NAME/KEY: modified_base
 74 <222> LOCATION: (9)...(0)
 75 <223> OTHER INFORMATION: I
 77 <221> NAME/KEY: modified_base
 78 <222> LOCATION: (12)...(0)
 79 <223> OTHER INFORMATION: I
 81 <221> NAME/KEY: modified_base
 82 <222> LOCATION: (15)...(0)
 83 <223> OTHER INFORMATION: I
 85 <221> NAME/KEY: modified_base
 86 <222> LOCATION: (18)...(0)
 87 <223> OTHER INFORMATION: I
 89 <400> SEQUENCE: 4
 W--> 90 atgtaygtnc cncnggngg
 92 <210> SEQ ID NO: 5
 93 <211> LENGTH: 20
 94 <212> TYPE: DNA
 95 <213> ORGANISM: Artificial Sequence
 97 <220> FEATURE:
 98 <221> NAME/KEY: modified_base
 99 <222> LOCATION: (3)...(0)
 100 <223> OTHER INFORMATION: I
 102 <221> NAME/KEY: modified_base
 103 <222> LOCATION: (9)...(0)
 104 <223> OTHER INFORMATION: I
 106 <221> NAME/KEY: modified_base
 107 <222> LOCATION: (15)...(0)
 108 <223> OTHER INFORMATION: I
 W--> 109 <400> SEQUENCE: 5
 W--> 110 ggngcrttnc cytcngtcca
 112 <210> SEQ ID NO: 6
 113 <211> LENGTH: 20
 114 <212> TYPE: DNA
 115 <213> ORGANISM: Artificial Sequence
 117 <220> FEATURE:
 118 <221> NAME/KEY: modified_base
 119 <222> LOCATION: (6)...(0)
 120 <223> OTHER INFORMATION: I
 122 <221> NAME/KEY: modified_base
 123 <222> LOCATION: (8)...(0)
 124 <223> OTHER INFORMATION: I

Some errors as ① + ②
 Repeated throughout 20

20

20

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/937,862

DATE: 10/30/2001

TIME: 13:19:11

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

```

126 <221> NAME/KEY: modified_base
127 <222> LOCATION: (9)...(0)
128 <223> OTHER INFORMATION: I
130 <221> NAME/KEY: modified_base
131 <222> LOCATION: (18)...(0)
132 <223> OTHER INFORMATION: I
134 <400> SEQUENCE: 6
W--> 135 acrtgncnng tytgcatngt 20
137 <210> SEQ ID NO: 7
138 <211> LENGTH: 18
139 <212> TYPE: DNA
140 <213> ORGANISM: Artificial Sequence
142 <220> FEATURE:
143 <221> NAME/KEY: modified_base
144 <222> LOCATION: (3)...(0)
145 <223> OTHER INFORMATION: I
147 <221> NAME/KEY: modified_base
148 <222> LOCATION: (15)...(0)
149 <223> OTHER INFORMATION: I
151 <400> SEQUENCE: 7
W--> 152 awnttytayg ayggntgg 18
154 <210> SEQ ID NO: 8
155 <211> LENGTH: 20
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <221> NAME/KEY: modified_base
161 <222> LOCATION: (3)...(0)
162 <223> OTHER INFORMATION: I
164 <221> NAME/KEY: modified_base
165 <222> LOCATION: (5)...(0)
166 <223> OTHER INFORMATION: I
168 <221> NAME/KEY: modified_base
169 <222> LOCATION: (6)...(0)
170 <223> OTHER INFORMATION: I
172 <221> NAME/KEY: modified_base
173 <222> LOCATION: (9)...(0)
174 <223> OTHER INFORMATION: I
176 <400> SEQUENCE: 8
W--> 177 tananngtnc ccatrttrtt 20
179 <210> SEQ ID NO: 9
180 <211> LENGTH: 20
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial Sequence
184 <220> FEATURE:
185 <221> NAME/KEY: modified_base
186 <222> LOCATION: (9)...(0)
187 <223> OTHER INFORMATION: I
189 <221> NAME/KEY: modified_base

```

RAW SEQUENCE LISTING

DATE: 10/30/2001

PATENT APPLICATION: US/09/937,862

TIME: 13:19:11

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

```

190 <222> LOCATION: (15)...(0)
191 <223> OTHER INFORMATION: I
193 <221> NAME/KEY: modified_base
194 <222> LOCATION: (18)...(0)
195 <223> OTHER INFORMATION: I
197 <400> SEQUENCE: 9
W--> 198 atgtayrtnc cnmcngngnc 20
200 <210> SEQ ID NO: 10
201 <211> LENGTH: 20
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <221> NAME/KEY: modified_base
207 <222> LOCATION: (3)...(0)
208 <223> OTHER INFORMATION: I
210 <221> NAME/KEY: modified_base
211 <222> LOCATION: (6)...(0)
212 <223> OTHER INFORMATION: I
214 <221> NAME/KEY: modified_base
215 <222> LOCATION: (12)...(0)
216 <223> OTHER INFORMATION: I
218 <221> NAME/KEY: modified_base
219 <222> LOCATION: (15)...(0)
220 <223> OTHER INFORMATION: I
222 <400> SEQUENCE: 10
W--> 223 ggnggngggrt cngtnakytt 20
225 <210> SEQ ID NO: 11
226 <211> LENGTH: 20
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <221> NAME/KEY: modified_base
232 <222> LOCATION: (3)...(0)
233 <223> OTHER INFORMATION: I
235 <221> NAME/KEY: modified_base
236 <222> LOCATION: (12)...(0)
237 <223> OTHER INFORMATION: I
239 <221> NAME/KEY: modified_base
240 <222> LOCATION: (15)...(0)
241 <223> OTHER INFORMATION: I
243 <400> SEQUENCE: 11
W--> 244 gangaraayc tnatngarac 20
246 <210> SEQ ID NO: 12
247 <211> LENGTH: 19
248 <212> TYPE: DNA
249 <213> ORGANISM: Artificial Sequence
251 <220> FEATURE:
252 <221> NAME/KEY: modified_base
253 <222> LOCATION: (6)...(0)

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/937,862

DATE: 10/30/2001

TIME: 13:19:11

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

254 <223> OTHER INFORMATION: I
 256 <221> NAME/KEY: modified_base
 257 <222> LOCATION: (12)...(0)
 258 <223> OTHER INFORMATION: I
 260 <400> SEQUENCE: 12
 W--> 261 cccatnakrt cnatrtccc 19
 263 <210> SEQ ID NO: 13
 264 <211> LENGTH: 20
 265 <212> TYPE: DNA
 266 <213> ORGANISM: Artificial Sequence
 268 <220> FEATURE:
 269 <221> NAME/KEY: modified_base
 270 <222> LOCATION: (9)...(0)
 271 <223> OTHER INFORMATION: I
 273 <221> NAME/KEY: modified_base
 274 <222> LOCATION: (11)...(0)
 275 <223> OTHER INFORMATION: I
 277 <221> NAME/KEY: modified_base
 278 <222> LOCATION: (12)...(0)
 279 <223> OTHER INFORMATION: I
 281 <400> SEQUENCE: 13
 W--> 282 gtretyacna nnagrtcyct 20
 284 <210> SEQ ID NO: 14
 285 <211> LENGTH: 19
 286 <212> TYPE: DNA
 287 <213> ORGANISM: Artificial Sequence
 W--> 289 <220> FEATURE:
 W--> 289 <223> OTHER INFORMATION:
 289 <400> SEQUENCE: 14
 290 tsaarytgtg caargacac 19
 292 <210> SEQ ID NO: 15
 293 <211> LENGTH: 18
 294 <212> TYPE: DNA
 295 <213> ORGANISM: Artificial Sequence
 W--> 297 <220> FEATURE:
 W--> 297 <223> OTHER INFORMATION:
 297 <400> SEQUENCE: 15
 298 stgyccagat ttcagtgt 18
 300 <210> SEQ ID NO: 16
 301 <211> LENGTH: 20
 302 <212> TYPE: DNA
 303 <213> ORGANISM: Artificial Sequence
 W--> 305 <220> FEATURE:
 W--> 305 <223> OTHER INFORMATION:
 305 <400> SEQUENCE: 16
 W--> 306 ggnacncayr tnathtggga 20
 308 <210> SEQ ID NO: 17
 309 <211> LENGTH: 20
 310 <212> TYPE: DNA

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/937,862

DATE: 10/30/2001

TIME: 13:19:12

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

L:4 M:201 W: Mandatory field data missing, APPLICANT NAME
L:16 M:270 C: Current Application Number differs, Replaced Current Application No
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:17 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:20 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:31 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:31 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:39 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:39 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:40 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:40 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:40 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:65 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:109 M:283 W: Missing Blank Line separator, <400> field identifier
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:289 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:289 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:297 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:297 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:305 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:305 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:306 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:16
L:306 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:16
L:306 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:2022 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:81
L:2022 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:81
L:2022 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
L:2034 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:82
L:2034 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:82
L:2034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:2046 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:83
L:2046 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:83
L:2046 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83

VERIFICATION SUMMARY

DATE: 10/30/2001

PATENT APPLICATION: US/09/937,862

TIME: 13:19:12

Input Set : A:\W112887.txt

Output Set: N:\CRF3\10302001\I937862.raw

L:2058 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:84
L:2058 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:84
L:2058 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:2083 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:86
L:2083 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:86
L:2083 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86